

High Nitrate for Juneau/Wood County residents near Armenia Township

The purpose of Armenia Groundwater Survey was to address groundwater concerns expressed by Armenia area residents. The Land and Water Resources Plan for Juneau County listed groundwater quality as the top priority. This groundwater survey was conducted to document the depth and extent of groundwater issues. The Goal was to promote awareness of water quality, provide low-cost testing, explain water testing results and options for fixing and /or improving well water quality.

Key messages:	Supporting Information:
<p>Health Risks Drinking water with high levels of nitrate is unsafe for everyone, but especially for babies (less than 6 month old) and pregnant women.</p>	<p>If well water has a nitrate level above the EPA Standard of 10 mg/L:</p> <ul style="list-style-type: none"> • No person should have any long-term consumption • Infants less than 6 months should immediately stop using the high nitrate water e.g. infant formula • Pregnant or women who may become pregnant should immediately stop using the high nitrate water for drinking or preparing foods (soup, rice,) • Everyone can use the water for activities like showering and household chores • Never boil high nitrate level water, it will only increase the concentration • Research supports consuming water with high nitrate levels may increase chances for thyroid disease, diabetes, and certain cancers • People with certain enzyme defects or cancers may be more sensitive to high nitrate risks compared to healthy people.
	<p>We urge residents to take immediate action if their drinking water has a high nitrate level.</p> <ul style="list-style-type: none"> • Use bottled water in the short-term to assure a safe source of water for drinking and

<p>Next steps to take if your well has high nitrate</p> <p>Use bottled water or water from a well without a nitrate problem for drinking and preparing food until you find a long-term solution.</p>	<p>cooking.</p> <ul style="list-style-type: none"> • Explore certified and effective treatment options. • The best long-term option is to install a new well in a zone of the aquifer with safe water. More research is needed to determine if this is a viable option in this area. Data from this study and additional testing will help determine if this is a possibility.
<p>Next steps for the Health and Conservationist professionals</p> <p>Homeowners are responsible for their own well, but health and conservation professionals are taking steps to learn more about nitrate in the area and share this information with the public.</p>	<p>The Health/ Conservation Department are committed to a helping residents learn about their water quality</p> <ul style="list-style-type: none"> • An educational session is part of the groundwater testing program and will occur once all results are analyzed and mapped • The departments are exploring expansion of the groundwater program in the Armenia area to find wells that have not been included in the groundwater program • Partnership with other agencies involved with groundwater quality and safety is ongoing (EPA,DNR, DATCP, DHS) • Make informational resources available e.g. certified treatment systems, educational materials, water testing kits, etc. • Urge residents to take immediate action if

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	high nitrate levels are found
	<p>Determine the depth the nitrate is penetrating the groundwater aquifer</p> <ul style="list-style-type: none"> • Share research on well depth safety for nitrate with residents. (Can residents drill out of the bad water quality zone?)
	<p>Reinforce that homeowners are responsible for their own well. This includes:</p> <ul style="list-style-type: none"> • Testing the well for nitrate every year, even if results were within a safe range because nitrate levels do change. • Testing the water for any new well • Testing the water if a change in color, taste, or smell is noticed.